

REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on February 27, 2003, and the references cited therewith.

No claims are amended or cancelled. Claims 1-50 remain pending in this application.

§102 Rejection of the Claims

Claims 6-12 and 18-24 were rejected under 35 USC § 102(e) as being anticipated by Rengarajan et al. (U.S. Patent No. 6,323,103).

Applicant does not admit that Rengarajan is indeed prior art and reserves the right to swear behind this reference at a later date. Nevertheless the Applicant believes that the present invention is distinguishable from the reference for the following reasons.

The rejection states that Rengarajan teaches:

Forming a first conductivity type semiconductor well 30 in the first conductivity type well region, removing the first gate dielectric layer 12 in the first conductivity type well region to expose a portion of the first conductivity type semiconductor well, forming a second gate dielectric layer 12' over the exposed portion of the first conductivity type semiconductor well 30 that is adapted for operation with a second conductivity type gate.

Rengarajan appears to show forming a second gate dielectric layer 12' over an exposed portion of a semiconductor well. However, Applicant respectfully maintains that Rengarajan does not show, teach, or suggest modifying the gate dielectric layer in the first conductivity type well region, the modified gate dielectric being adapted for operation with a second conductivity type gate material. Applicant also respectfully maintains that Rengarajan does not show, teach, or suggest forming a second gate dielectric layer that differs in thickness from the first gate dielectric layer. Applicant also respectfully maintains that Rengarajan does not show, teach, or suggest coupling a hardened dielectric layer to the second gate dielectric layer.

The Office Action appeared to state the contrary, that “Rengarajan et al. teach replacing layer dielectric layer 12 with dielectric layer 12' and modifying properties such as thickness to tailor the gate dielectric for operation with a particular gate layer. Therefore , the reference includes the newly claimed limitation.”

Applicant respectfully traverses this assertion. Applicant notes that in column 6, lines 61-62 Rengarajan states that, “The etching process may also remove a portion of or the whole gate oxide 12 in active area 24B.” In column 7, lines 13-20 Rengarajan further states that, “The structure is wet **etched to remove any remaining portion of gate oxide layer 12** in active area 24B. In this case also, masking layer 26 and, if applicable, active area isolations 22 limit the etching process to active area 24B. Referring to FIG. 1F, a **new gate oxide layer 12'** is then grown in active area 24B.”

Applicant is unable to find any teaching in Rengarajan that suggests differences in thickness of the new gate oxide 12' as suggested by the Examiner. The drawings appear to suggest that the new gate oxide 12' is grown to the same thickness as gate oxide 12, for example at Figure 1F. Applicant is unable to find any teaching of any modification to the new gate oxide 12'. If a particular portion of the Rengarajan reference is asserted to the contrary, a specific citation is respectfully requested.

In contrast, Applicant's claims 1 and 13 include modifying the gate dielectric layer in the first conductivity type well region, the modified gate dielectric being adapted for operation with a second conductivity type gate material. Further Applicant's claims 6 and 18 include forming a second gate dielectric layer over the exposed portion of the first conductivity type semiconductor well, the second gate dielectric layer being adapted for operation with a second conductivity type gate material. Further, Applicant's claims 8 and 20 include coupling a hardened dielectric layer to the second gate dielectric layer. Further, Applicant's claims 9 and 21 include a second gate dielectric layer that differs in thickness from the first gate dielectric layer.

Because the Rengarajan reference does not show every element of Applicant's claims, a 35 USC § 102(e) rejection is not supported. Reconsideration and withdrawal of the rejection is respectfully requested with respect to Applicant's independent claims 1, 6, 13, and 18. Further, reconsideration and withdrawal of the rejection is respectfully requested with respect to dependent claims 8, 9, 20, and 21 as outlined above. Additionally, reconsideration and withdrawal of the rejection is respectfully requested with respect to the remaining claims as depending on allowable base claims.

§103 Rejection of the Claims

Claims 1-5 and 13-17 were rejected under 35 USC § 103(a) as being unpatentable over Rengarajan et al. in view of Choi et al. (U.S. Patent No. 5,750,424).

Applicant respectfully submits that the Choi reference does not cure the deficiencies of Rengarajan as asserted under 102(e) arguments above. Applicant reserves the right to further argue the Choi reference at a later date.

Because the cited references, either alone or in combination, do not show every element of Applicant's independent claims, a 35 USC § 103(a) rejection is not supported by the references. Reconsideration and withdrawal of the rejection is respectfully requested with respect to Applicant's independent claims 1, 6, 13, and 18. Additionally, reconsideration and withdrawal of the rejection is respectfully requested with respect to the remaining claims that depend therefrom as depending on allowable base claims.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6944 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.


Respectfully submitted,

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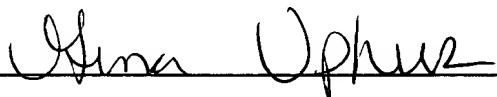
Date 4-28-03

By 
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Box AF, Commissioner of Patents, Washington, D.C. 20231, on this 26 day of April, 2003

Gina M. Uphus

Name


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